UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,832	04/19/2001	Ojas T. Choksi	062891.0515	2046

5073 7590 04/18/2006

BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER	
FERGUSON, KEITH	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/839,832	CHOKSI, OJAS T.	
	Examiner	Art Unit	
	Keith T. Ferguson	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Claim Rejections - 35 USC § 112

2. Claims 27-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 27 recites the limitation "the macro network" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-40,43,44 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al., previous presented reference.

Regarding claim 1, Chang et al. discloses a method for detecting a wireless network (fig. 2 and col. 8 line 34 through col. 9 line 2), comprising: receiving at a mobile device a signal having data indicative of a location of the mobile device (col. 8 lines 27-40); determining whether the mobile device is within a coverage area of a specified network (private system) based on the data (col. 8 lines 27-50); and scanning (performing a search) for the specified network in response to at least determining that the mobile device is within the coverage area of the specified network (col. 8 lines 27-50). Chang et al. differs from claim 1 of the present invention in that it does not disclose wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network, wherein the specified network is overlapped by coverage from a macro network; electing whether or not to camp onto the specified network based on its availability; and continuing to scan until the mobile device enters the specified network. Souissi et al. teaches detecting a wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40) wherein a location is determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40), a distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40), a private network (fig. 3 number 306) is overlapped from a public (macro) network (fig. 3 number 302), receiving a color code A of the private network (i.e. the private network is available by sending its color code A to the subscriber unit, as taught in col. 4 lines 42-64) , electing whether to camp on the color code (col. 4 lines 54-64), and scans until finding a usable signal for the subscriber unit to camps on which is the private network (second system) (col. 4 lines 54-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang et al. method of detecting a wireless network with wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network, wherein the specified network is overlapped by coverage from a macro network; electing whether or not to camp onto the specified network based on its availability; and continuing to

scan until the mobile device enters the specified network in order for the mobile device to quickly detect and select a preferred private wireless system when roaming within a specified distance of the preferred private system which saves power within the mobile device by not having to continuous scan channels of the private wireless system and supplies a cheaper communication rate than a public system, as taught by Souissi et al..

Regarding claims 2,15 and 28, Chang et al. discloses the signal comprises a base station broadcast message (public system information) having a base station identifier (base station identifier contained within) (col. 6 lines 1-59), further comprising: extracting the base station identifier from the base station broadcast message (col. 6 lines 17-59); comparing (matching) the base station identifier to a listing of base station identifiers for base stations at least proximate to the specified network (i.e. a match between the broadcast public system information and that stored in the overlaying system table) (col. 6 lines 17-59); and scanning (attempts to locate) for the specified network in response to at least the base station identifier from the base station broadcast message matching one of the base station identifiers in the listing of base station identifiers (col. 6 lines 27-59).

Regarding claims 3,16 and 29, Chang et al. discloses the base station identifiers for the specified network are stored in a network table at the mobile device (col. 5 line 57 through col. 6 line 22).

Regarding claims 4,17 and 30, Chang et al. discloses a base station broadcast message having a latitude and longitude of the base station (col. 7 line 51 through col. 8 line 15), further comprising: extracting the latitude and longitude from the base station broadcast message (col. 7 line 51 through col. 8 line 15); comparing a location based on the latitude and longitude to the coverage area of the specified network (col. 7 line 51 through col. 8 line 15); and scanning (attempts to locate) for the specified network in response to at least the location being within the coverage area of the specified network (col. 7 line 51 through col. 8 line 15).

Regarding claims 5,8,18,21,31 and 34, Chang et al. discloses the coverage area is defined at the mobile device (i.e. the mobile device compares the broadcast information with in information stored within its memory)(col. 6 lines 17-59).

Regarding claims 6,9,19,22,32 and 35, Chang et al. discloses the coverage area is defined by at least a center (i.e. a base station within the center of the cell)(fig. 5 number 505), a shape (circle) (fig. 5 number 505) and dimensional information for the coverage area (fig. 5 LAT/LONG number 505).

Regarding claims 7,20 and 33, Chang et al. discloses a global positioning satellite (GPS) signal (inherent, when a mobile device detects a GPS signal, taught in col. 3 lines 29-36), further comprising: determining a location of the mobile device based on the GPS signal (col. 3 lines 29-36); comparing the location of the mobile device to the coverage area of the specified network (col. 5 line 57 through col. 6 line 59); and scanning (attempts to locate) for the specified network in response to at least the mobile device being within the coverage area of the specified network (col. 5 line 57 through col. 6 line 59).

Regarding claims 10,23 and 36, Chang et al. discloses the signal comprises a CDMA base station broadcast signal (col. 1o lines 11-35).

Regarding claims 11,24 and 37, Chang et al. discloses a preferred network for a user of the mobile device (col. 5 lines 18-21).

Regarding claims 12,25 and 38, Chang et al. discloses camping (i.e. attempt to register) onto the specified network if available (col. 5 lines 18-28 and col. 8 line 67 through col. 9 line 2).

Regarding claims 13,26 and 39, Chang et al. discloses determining whether the mobile device is within the coverage area of the specified network based on the data indicative of location and coverage data for the specified network corresponding in type to the data indicative of location (col. 5 line 57 through col. 6 line 59 and col.7 line 51 through 4).

Regarding claims 14 and 27, Chang et al. discloses a system for detecting a wireless network (fig. 1 and col. 8 line 34 through col. 9 line 2), comprising: means (logic operative to receive) for receiving at a mobile device a signal (logic encoded in media) having data indicative of a location of the mobile device (col. 8 lines 27-40); means for determining whether the mobile device is within a coverage area of a specified network (private system) based on the data (col. 8 lines 27-50); and means for scanning (performing a search) for the specified network in response to at least determining that the mobile device is within the coverage area of the specified network (col. 8 lines 27-50). Chang et al. differs from claims 14 and 27 of the present invention in that it does not disclose wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network, wherein the specified network is overlapped by coverage from a macro network; electing whether or not to camp onto the specified network based on its availability; and continuing to scan until the mobile device enters the specified network. Souissi et al. teaches detecting a wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40) wherein a location is determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40), a distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40), a private network (fig. 3 number 306) is overlapped from a public (macro) network (fig. 3 number 302), receiving a color code A of the private network (i.e. the private network is available by sending its color code A to the subscriber unit, as taught in col. 4 lines 42-64) , electing whether to camp on the color code (col. 4 lines 54-64), and scans until finding a usable signal for the subscriber unit to camps on which is the private network (second system) (col. 4 lines 54-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang et al. system for detecting a wireless network with wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network, wherein the specified network is overlapped by coverage

from a macro network; electing whether or not to camp onto the specified network based on its availability; and continuing to scan until the mobile device enters the specified network in order for the private wireless system to provide services to the mobile device when the mobile device quickly detect and select the private wireless system for service when roaming within a specified distance of the private wireless system which saves power within the mobile device and supplies a cheaper communication rate than a public system, as taught by Souissi et al..

Regarding claim 40, Chang et al. discloses a method (fig. 2) for detecting a preferred (private) wireless network while camped onto an overlying macro (public system) network (fig. 1, col. 5 line 57 through col. 6 line 63 and col. 8 lines 40-55), comprising: receiving at a mobile device a base station broadcast message having a base station identifier (public system information) (col. 5 line 57 through col. 6 line 22); extracting a base station identifier from the base station broadcast message (col. 6 line 1-22); determining whether the mobile device is within a coverage area of a preferred network by comparing the base station identifier to a listing of base station identifiers for base stations at least proximate to the preferred network stored in a network table at the mobile device (col. 6 line 1-19); scanning (attempt to locate) for the preferred network in response to at least the base station identifier from the base station broadcast message matching one of the base station identifiers in the network table (col. 6 line 17-58); and camping onto the preferred network if available (col. 6 line 50-63). Chang et al. further discloses the mobile device camps onto the preferred network even if the mobile device is receiving signals from the overlying macro network (fig. 6 and col. 7 lines 42-47). Chang et al. differs from claim 40 of the present invention in that it does not disclose wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network, wherein the specified network is overlapped by coverage from a macro network; electing whether or not to camp onto the specified network based on its availability; and continuing to scan until the mobile device enters the specified network. Souissi et al. teaches detecting a wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40) wherein a location is

determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40), a distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40), a private network (fig. 3 number 306) is overlapped from a public (macro) network (fig. 3 number 302), receiving a color code A of the private network (i.e. the private network is available by sending its color code A to the subscriber unit, as taught in col. 4 lines 42-64) , electing whether to camp on the color code (col. 4 lines 54-64), and scans until finding a usable signal for the subscriber unit to camps on which is the private network (second system) (col. 4 lines 54-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang et al. method of detecting a wireless network with wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network, wherein the specified network is overlapped by coverage from a macro network; electing whether or not to camp onto the specified network based on its availability; and continuing to scan until the mobile device enters the specified network in order for the mobile device to quickly detect and select a preferred private wireless system when roaming within a specified distance of the preferred private system which saves power within the mobile device by not having to continuous scan channels of the private wireless system and supplies a cheaper communication rate than a public system, as taught by Souissi et al..

Regarding claim 43, Chang et al. discloses the base station identifier (col. 6 lines 1-22) is for a base station of the specified (private) network and the base station broadcast message is transmitted by a base station of a disparate network (public)(col. 6 lines 1-22).

Regarding claim 44, Chang et al. discloses the base station identifier (col. 6 lines 1-22) is for base station of a disparate (private) network and the base station broadcast message is transmitted by a base station of the disparate (public) network (col. 6 lines 1-22).

Regarding claim 48, Chang et al. discloses receiving at the mobile device the base station broadcast message having the base station identifier and a network identifier (SID)(col. 6 lines 1-22); extracting the network identifier (SID) from the base station broadcast message)(col. 6 lines 1-22; determining whether the mobile device is within the coverage area of the preferred (private) network by comparing the network identifier (SID) to a stored network identifier for the preferred network (col. 5 line 57 through col. 6 line 58); and scanning (attempt to locate) for the preferred network in response to at least a network identifier from the base station broadcast message matching the stored network identifier (col. 6 line 17-58).

6. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as applied to claim 40 above and in further view of Seazholtz et al..

Regarding claims 41 and 42, the combination of Chang et al. and Souissi et al. differs from claims 41 and 42 of the present invention in that they do not disclose the mobile device camps onto the preferred network if available so long as signals are received from the preferred network at a minimal signal strength, and the mobile device camps onto the preferred network even if the mobile device is receiving signals from the overlying macro network at a strength greater than that of signals from the preferred network. Seazholtz et al. teaches subscriber station selects a SID within its memory based upon a biasing process if available so long as signals are received from the preferred SID list at a minimal signal strength (col. 15 line 52 through col. 16 line 35), and the subscriber station selects the preferred SID even if receiving signals from other SIDS at a strength greater than that of signals from the preferred SID (col. 16 lines 20-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang et al. and Souissi et al. with the mobile device camps onto the preferred network if available so long as signals are received from the preferred network at a minimal signal strength, and the mobile device camps onto the

preferred network even if the mobile device is receiving signals from the overlying macro network at a strength greater than that of signals from the preferred network in order for the mobile device to receive cheaper rates when communicating in within the private network as long as the signal strength is good enough for reliable communication, as taught by Seazholtz et al..

7. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as applied to claim 40 above and in further view of Yahagi.

Regarding claim 45, the combination of Chang et al. and Souissi et al. differs from claim 45 of the present invention in that they do not disclose the base station identifier is automatically updated by the base station of the disparate network based on radio discovery. Yahagi teaches once a mobile station moves into a different area an update is made with a database of the new location and new base station within the system (col. 2 lines 1-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang et al. and Souissi et al. with the base station identifier is automatically updated by the base station of the disparate network based on radio discovery in order for the private network to provide services to the mobile device which may provide a cheaper rate for service, as taught by Yahagi.

8. Claims 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as applied to claim 40 above and in further view of Ishida.

Regarding claim 46, the combination of Chang et al. and Souissi et al. differs from claim 46 of the present invention in that they do not disclose backing off scanning after each scan and termination scanning for the specified network after a specified number of tries, and terminating the scan upon leaving the coverage area. Ishida teaches backing off scanning after each scan (col. 4 lines 16-24) and termination scanning after a specified number of tries (col. 4 lines 16-24). Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify the combination of Chang et al. and Souissi et al. with backing off scanning after each scan and termination scanning for the specified network after a specified number of tries, and terminating the scan upon leaving the coverage area in order for the radio telephone to save battery resources within by not continuing to scan a private system signal and to stop scanning the public system when a private system signal is found, as taught by Ishida.

9. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as applied to claim 40 above and in further view of Brederveld et al..

Regarding claim 47, the combination of Chang et al. and Souissi et al. differs from claim 47 of the present invention in that it does not disclose terminating the scan upon leaving the coverage area. Brederveld et al. teaches a mobile station that stops searching a previous base station when a candidate base station for handover signal is better (col. 4 line 54 through col. 5 line 20 and fig. 5a and fig. 5b number 124). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang et al. and Souissi et al. with terminating the scan upon leaving the coverage area in order for the radio telephone to be connected with the private system where air time is cheaper, as taught by Brederveld et al..

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Raith (U.S. Pub. 2005/0101333 A1) discloses detecting a private network or public network based upon a control channel and the distance from each of the networks (paragraph 0025 lines 1-35). Raith (U.S. Pub.

2002/0102974) discloses a public (macro) network (100) and a private network (204), wherein a mobile station duration of a search is based of the distance of the network (paragraph 0034 lines 1-7 and paragraph 0035 lines 1-10).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (571) 272-7865. The examiner can normally be reached on 6:30am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson
Art Unit 2617
April 11, 2006

KEITH FERGUSON
PRIMARY EXAMINER